

ABSTRACT OF THE DISCLOSURE

A succession of superposed digitized sections of an object are produced from a three-dimensional representation of the object. A powder or a mixture of powders is spread in the form of a fine layer and heated to a temperature close to solid phase sintering temperature of the powder or the mixture of powders. The layer is brought to the sintering temperature by scanning with a laser beam the layer such that a selected part of the powder, corresponding to one of the digitized sections of the object to be produced, is sintered in solid phase by the additional energy supplied by the laser. Additional layers of the powder or the mixture of powders are spread, heated and scanned with the laser beam until all the digitized superposed sections of the object to be produced are obtained.